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2025.6

PHOMI®
econiclay

A Timeless Travertine Treasure

Nature's Masterpiece in Every Detail

PHOMI HOLDING
material science that shapes the future

Founder/leader/standard setter of MCM industry
Winner of the 123rd Paris International Invention Gold Award
Winner of the 76th International Exhibition of Inventions Nuremberg
Winner of Chinese Patent Award

Global Hub for Rare Stone Digitalization

PHOMI eCovering Smart Plant

PHOMI is transforming the building envelope industry with four core innovations: low-carbon materials, pioneering aesthetics, integrated photovoltaic technology, and cost efficiency.

As a disruptor of high-carbon building materials, PHOMI's products replace natural stone, tiles, precast concrete, and synthetic resin. By combining solar power and digital technology, PHOMI creates a "triple evolution path" for building envelopes: supporting municipal renewal, zero-carbon buildings, infrastructure upgrades, and aesthetic redesign. It provides a photovoltaic building-integrated（BIPV）energy system and a digital information platform.

This dual innovation in materials and functionality transforms building envelopes into smart, energy-efficient, and information-rich systems, reshaping the construction industry's value chain.

Certified for 18 consecutive years by international authorities with on-site inspections, rigorously tested in extreme climates from polar cold to equatorial heat, our products demonstrate proven reliability across 120 countries worldwide, achieving a global application milestone with over 60 million square meters of implemented solutions.

BV Certification

EU TUV Certification

China CQC Solar Product Certification

China CQC Quality Certification

International CB Certification

CE certification

US Patent
Patent No.
US 8505840 B2
US 10155694 B2

EU Patent
Patent No.
2157139

International Organization for Standardization Certification No.
QMJC/CN/135158-C

EU EPD Environmental Product Certification

U.S. UL Green Guard Certification

EU Fireproof Material Certification

Singapore Green Label Certification No.
024-013-2219

A New Fomula for Stone: Zero Carbon, Infinite Design.

1

eCovering

A Digital Collection of Travertine from Across the Globe

2

eSolarFacade

Partner with the Sun to power the buildings on

3

eDisplay

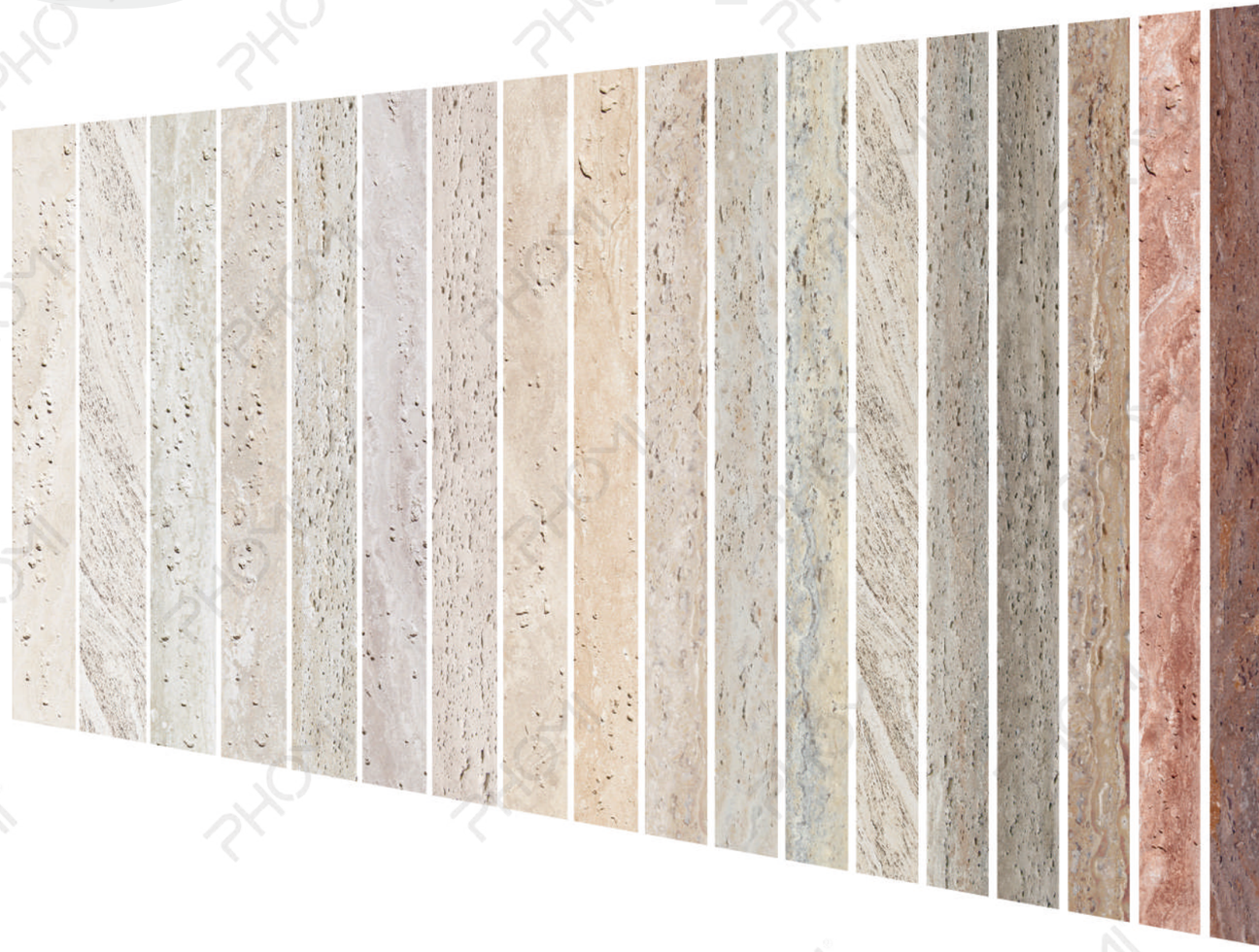
Turn the stone into a 24/7 premium advertising space

4

Negative Ion Series

Integrated with nano-level negative ion technology, redefining architecture with a perfect fusion of health and aesthetics

From the Burj Khalifa Tower to Starbucks, 237 landmarks are rewriting the oxygen formula for 300,000 ㎡ commercial spaces with eCoverings.



Globally rare, ultra-large 1200 x 6000mm seamless stone slabs, perfectly showcasing natural voids.

eCovering

A Digital Collection of Travertine
from Across the Globe

「Masterfully crafted
geological textures,
perfected with millimeter
precision」

「Each oversized travertine
embodies the relentless
pursuit of perfection」

PHOMI®
eCovering

Why PHOMI eCovereing?

- Authentic modified clay, from nature. Without resin, no toxic ingredients, Healthy.
- A-class fireproof. mold and bacteria-resistant. (optional)
- Inorganic material without resin, 50-year weather resistance, anti-fading. Applied for 18 years under various extreme climates, with over 60 million ㎡ of application cases in 120+ countries/regions.
- Versatile applications: salt spray resistant, freeze-thaw resistant, breathable, lightweight, and easy to install; suitable for irregular shapes, ceilings, bathrooms, and more.

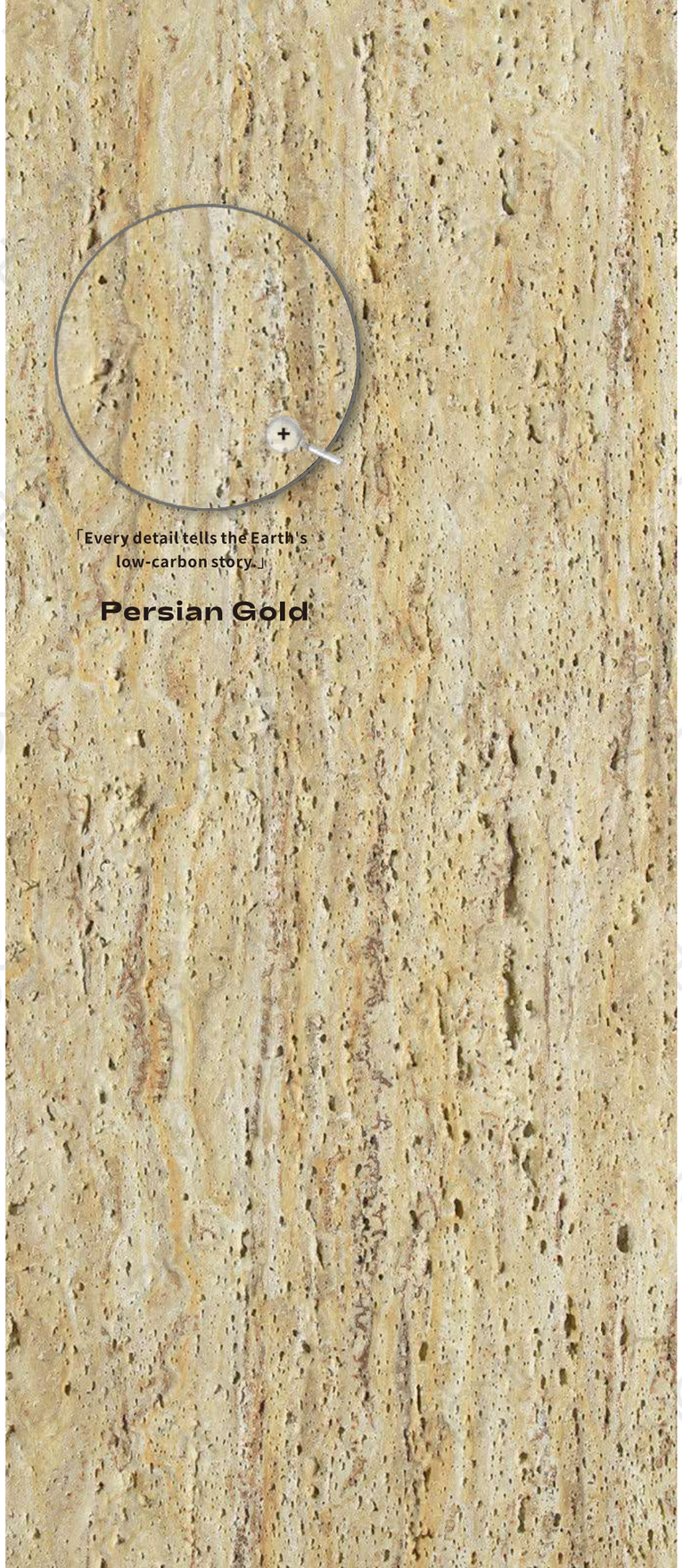
Shape It Your Way,
Limitless Possibilities

eCoverings reduce compared to tiles ↓95.4% CO_2e

eCoverings reduce compared to stones ↓98.63% CO_2e

Coral Travertine

「Turn the facade into a coral reef, bridging architecture and the ocean.」



「Every detail tells the Earth's low-carbon story.」

Persian Gold

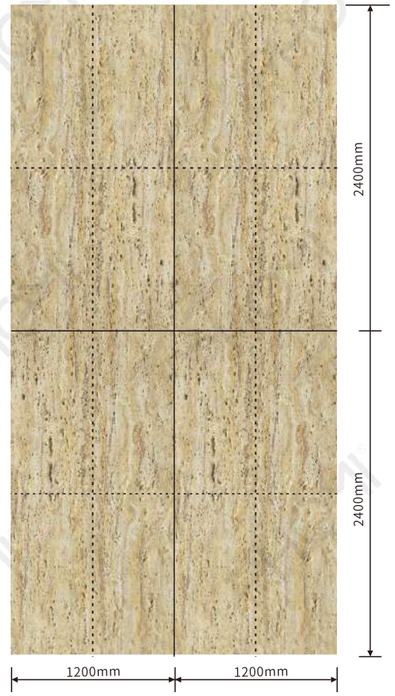
From Mines to Curtain Walls: Hidden Cost Visualization Report

For a 100,000m² project, PHOMI travertine delivers savings of:
Transportation: 533,560 USD → 373,215 USD (saving 1.5 million USD)
Packaging Loss: 525,266 USD → 82,936 USD + zero insurance claims (saving 442,329 USD)
Carbon Tax: 5.21 million euros saved (based on EU CBAM 2026 at 90 euros/ton)
Project Timeline: 3x installation efficiency, reducing capital costs by 2.9 million USD
Total Savings: 8.5 million USD in reduced costs, with IRR increasing to 22.7%

Specification and packaging

Generation	Standard size(mm)	Thickness(mm)	Packaging(mm)	Pcs/box	Sqm/box
4.0	1200x600	3.2(±0.5)	1220x620x75	14	10.08

PHOMI eCovering



More color options

PHOMI Travertine vs. Native Roman Travertine: Performance Comparison

1. Lightweight & Transport Efficiency

Weight per m^2: PHOMI 4.5 kg | Native 70 kg
Truck Load (14-ton capacity): PHOMI 300 m^2 | Native 250 m^2
Transport Cost in Rome: PHOMI €0.8/m^2 | Native €5.2/m^2

2. Carbon Footprint Reduction

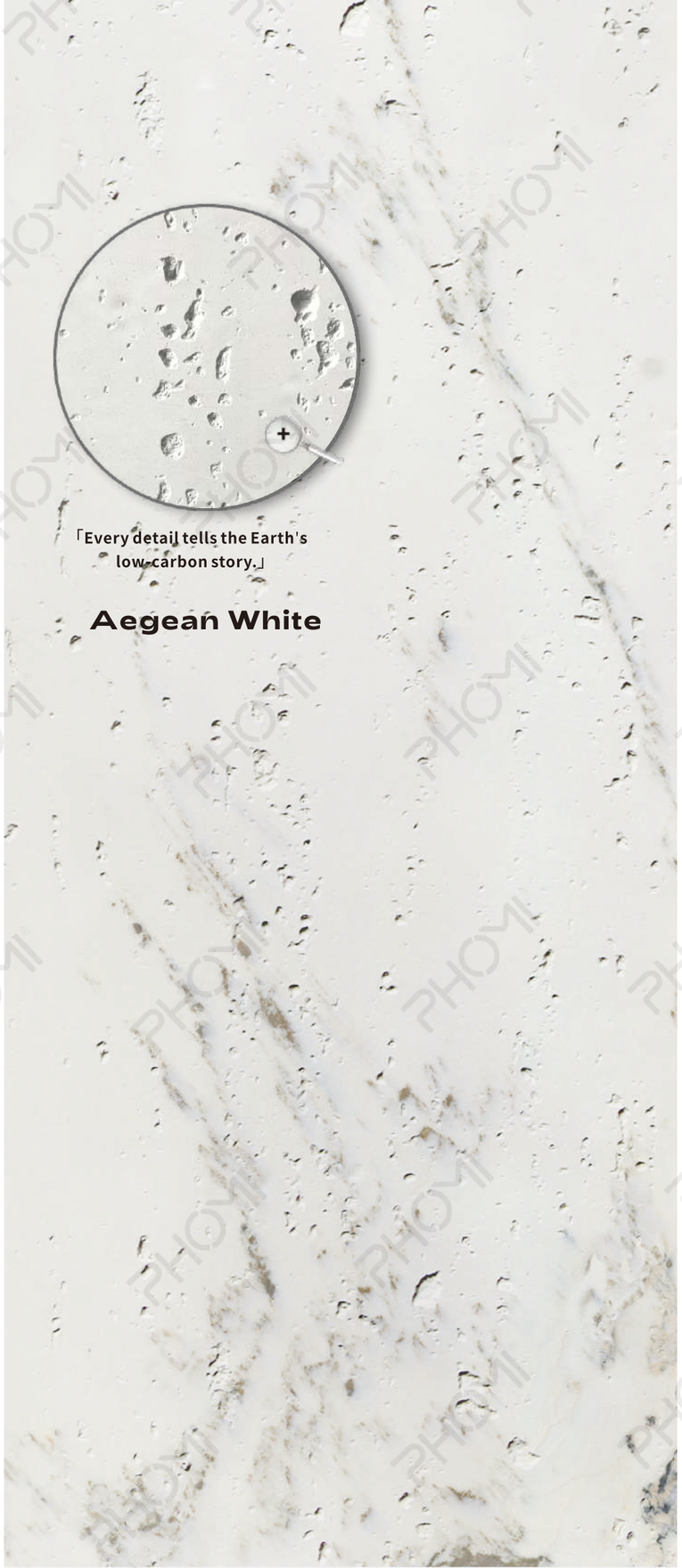
Stage	PHOMI(kg CO_2e/m^2)	Native (kg CO_2e/m^2)	Reduction
Extraction/Production	0.62	68.4	-99.1%
Local Transport	0.08	1.7	-95.3%
Installation Energy	0.32	9.4	-96.6%
Full Lifecycle	1.02	79.5	-98.63%

3. Projct Benefits (10,000 m^2 Application)

Carbon Reduction: 78.5 tons CO_2e (79,500 kg vs. 1,020 kg)
Equivalent Environmental Impact: ≈ 7,850 trees' annual carbon sequestration (Italian Ministry of Environment standard)
Cost Savings: 83% lower transport + installation costs (€64/m^2 → €11/m^2)

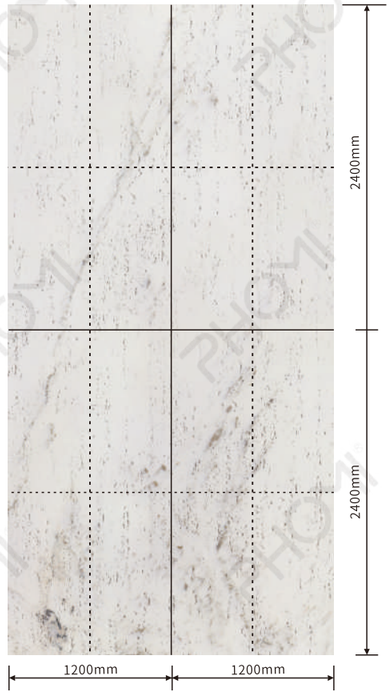
4. Sustainability

PHOMI Travertine: 93% of the raw material is industrial waste, with water usage of just 0.4 kg/m^2 (compared to 5.2 tons for Tivoli travertine).
Mining Impact: The Tivoli mine has a 1.8% annual degradation rate (University of Rome report). Each 10,000 tons mined results in the loss of 3.7 hectares of forest (Italian EPA data).



「Every detail tells the Earth's low-carbon story.」

Aegean White



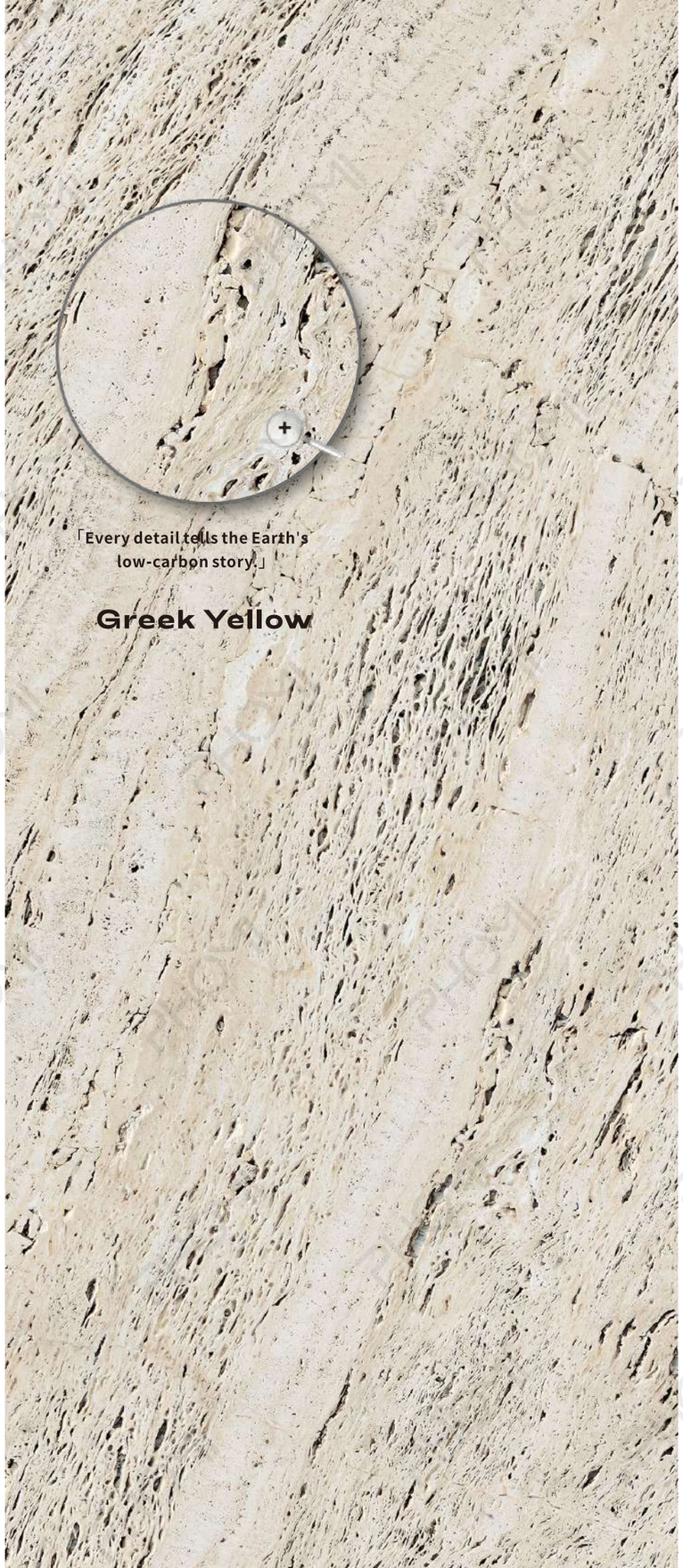
More color options

Specification and packaging

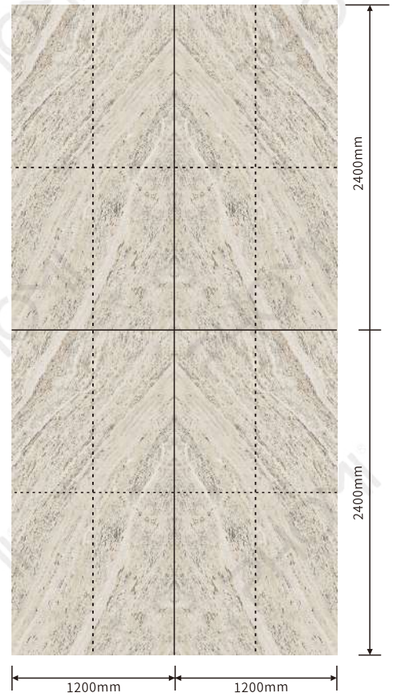
Generation	Standard size(mm)	Thickness(mm)	Packaging(mm)	Pcs/box	Sqm/box
3.0	1200x600	3.3(±1)	1220x620x75	18	12.96
	2400x1200		Sizes above 2400x1200 are packed with wooden case as per order quantity (subject to packaging fee)		
	(3000-6000mm)x1200				
4.0	1200 x 600	3.2(±0.5)	1220x620x75	16	11.52
	1500 x 750		1520x770x55	-	-

Oceanic Travertine

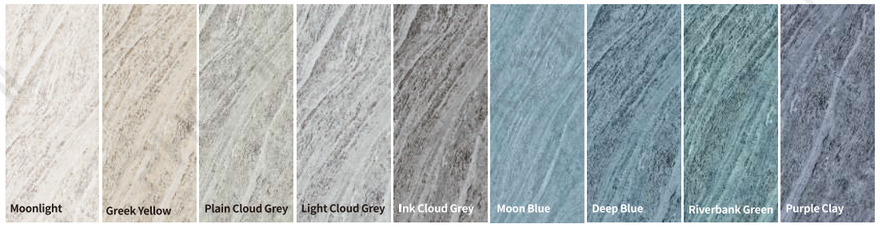
Double-joined effect of 2800x1200 (mm) and more color options



PHOMI eCovering



Specifications of 1200X600 (mm), with more color options available.



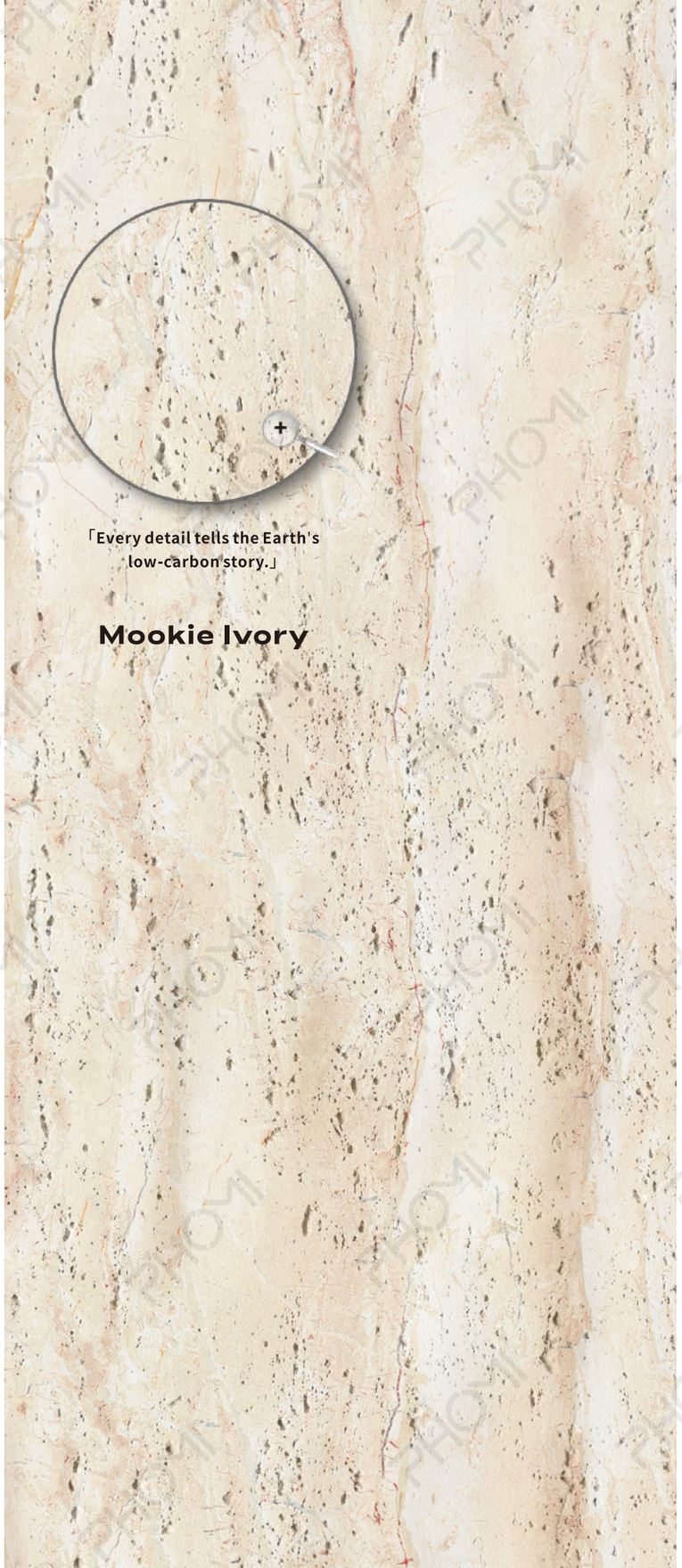
Specification and packaging

Generation	Standard size(mm)	Thickness(mm)	Packaging(mm)	Pcs/box	Sqm/box
4.0	1200 x 600	3.2(±0.5)	1220x620x75	14	10.08
3.0	2800x1200	2-6	Sizes above 2800x1200 are packed with wooden case as per order quantity (subject to packaging fee)		

Every Square Feet, A Promise to the Planet

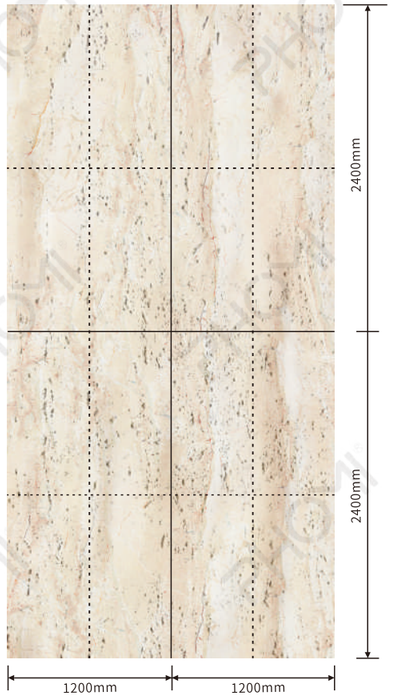
Choosing PHOMI eCoverings means:
✓ 17,000 trees saved (per 10,000 m^2)
✓ 46 hectares of quarry land preserved (China's Ecological Red Line Data for Stone Mining)
✓ 60,000 tons of wastewater prevented (compared to natural stone polishing)
✓ 1,200 tons of coal consumption avoided (based on logistics energy savings)

Real Impact:
If used in Beijing Daxing Airport's aerotropolis, it would add the carbon sink of 2.3 Olympic Forest Parks to the region.



「Every detail tells the Earth's low-carbon story.」

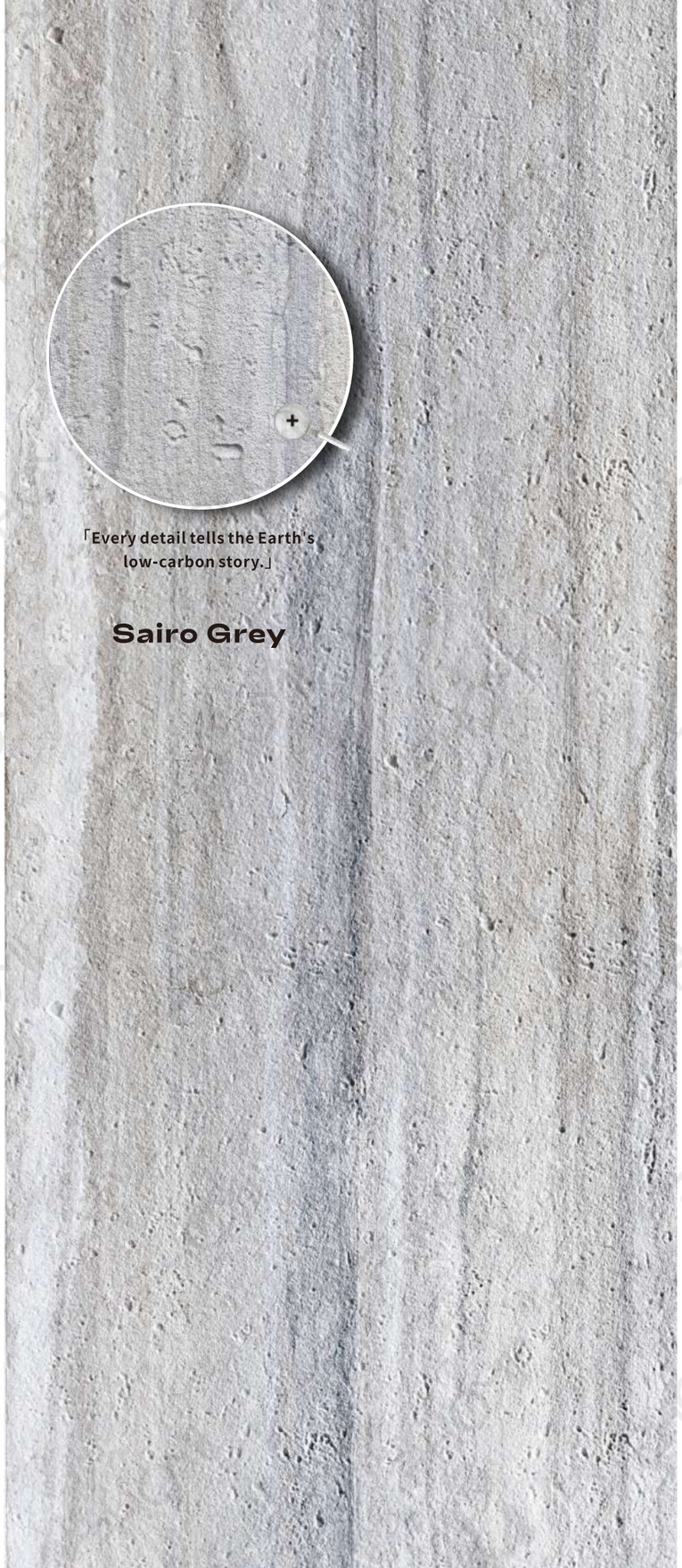
Mookie Ivory



More color options

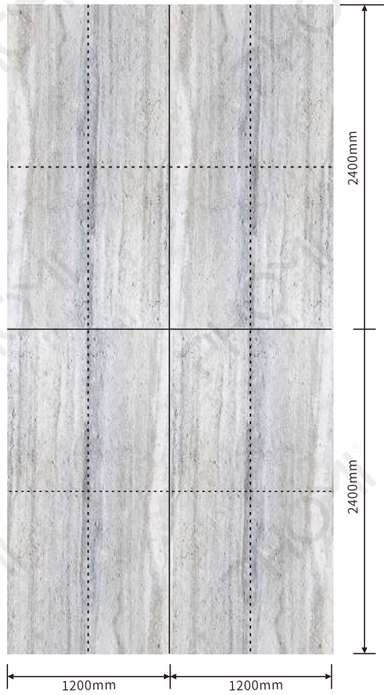
Specification and packaging

Generation	Standard size(mm)	Thickness(mm)	Packaging(mm)	Pcs/box	Sqm/box
4.0	1200x600	3.2(±0.5)	1220x620x75	14	10.08



「Every detail tells the Earth's low-carbon story.」

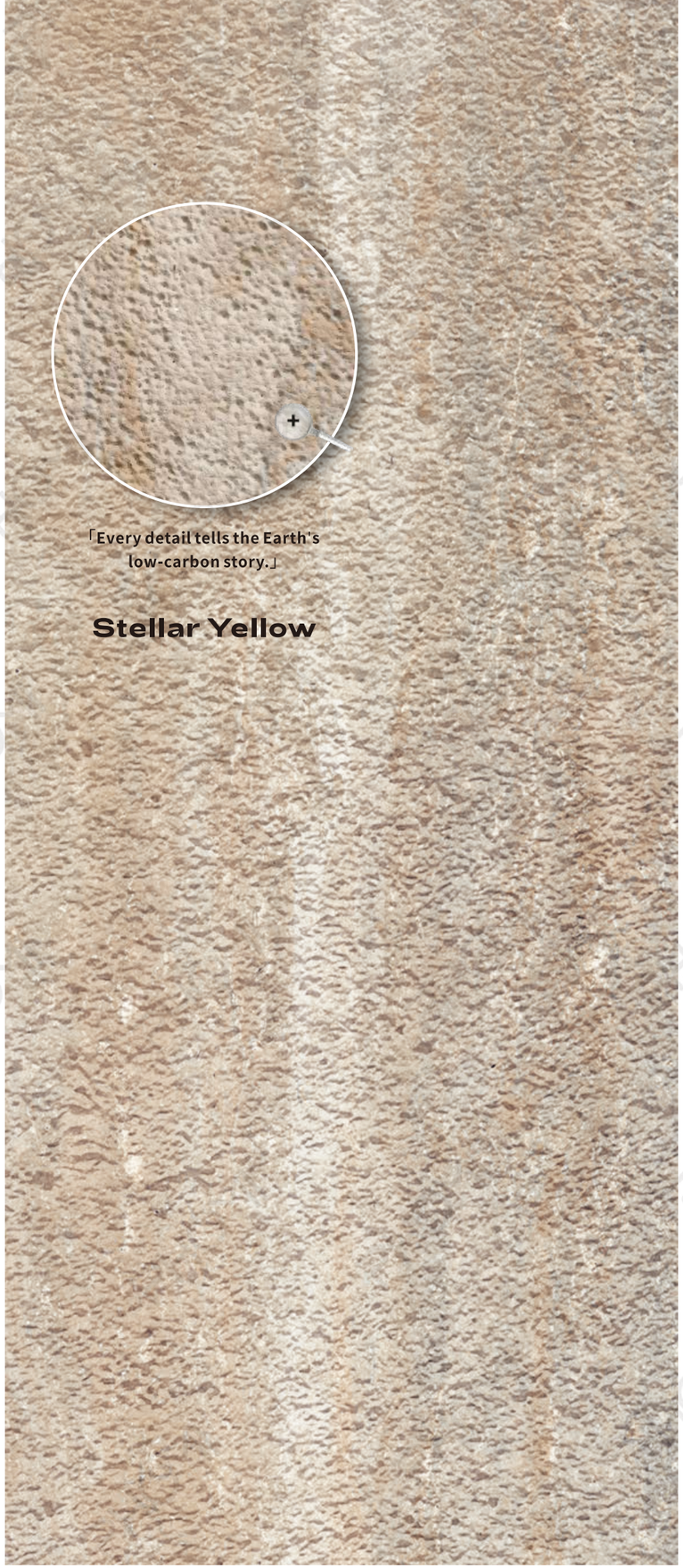
Sairo Grey



More color options

Specification and packaging

Generation	Standard size(mm)	Thickness(mm)	Packaging(mm)	Pcs/box	Sqm/box
3.0	1200x600	2.8(±1)	1220x620x75	18	12.96
	2400x1200		Sizes above 2400x1200 are packed with wooden case as per order quantity (subject to packaging fee)		



「Every detail tells the Earth's low-carbon story.」

Stellar Yellow

More color options

Specification and packaging

Generation	Standard size(mm)	Thickness(mm)	Packaging(mm)	Pcs/box	Sqm/box
4.0	1200x600	3.2(±0.5)	1220x620x75	16	11.52

Cloud Silk Travertine

4.5 kg/m²: Redefining Architecture & Sustainability

Structural Efficiency

Cuts facade weight of a 200m skyscraper from 14000 to 900 Tons.
Saves 23,000 tons of concrete, reducing foundation costs by 42%.
Prevents 9,200 tons CO_2e emissions (400 kg CO_2e per ton of concrete)

Seismic & Carbon Benefits

Elastic modulus reduced from 50 GPa (stone) to 18 Gpa, absorbing 7x more seismic energy.
82% lower lifecycle maintenance carbon emissions (MIT Resilience Model)

Faster & Greener Installation

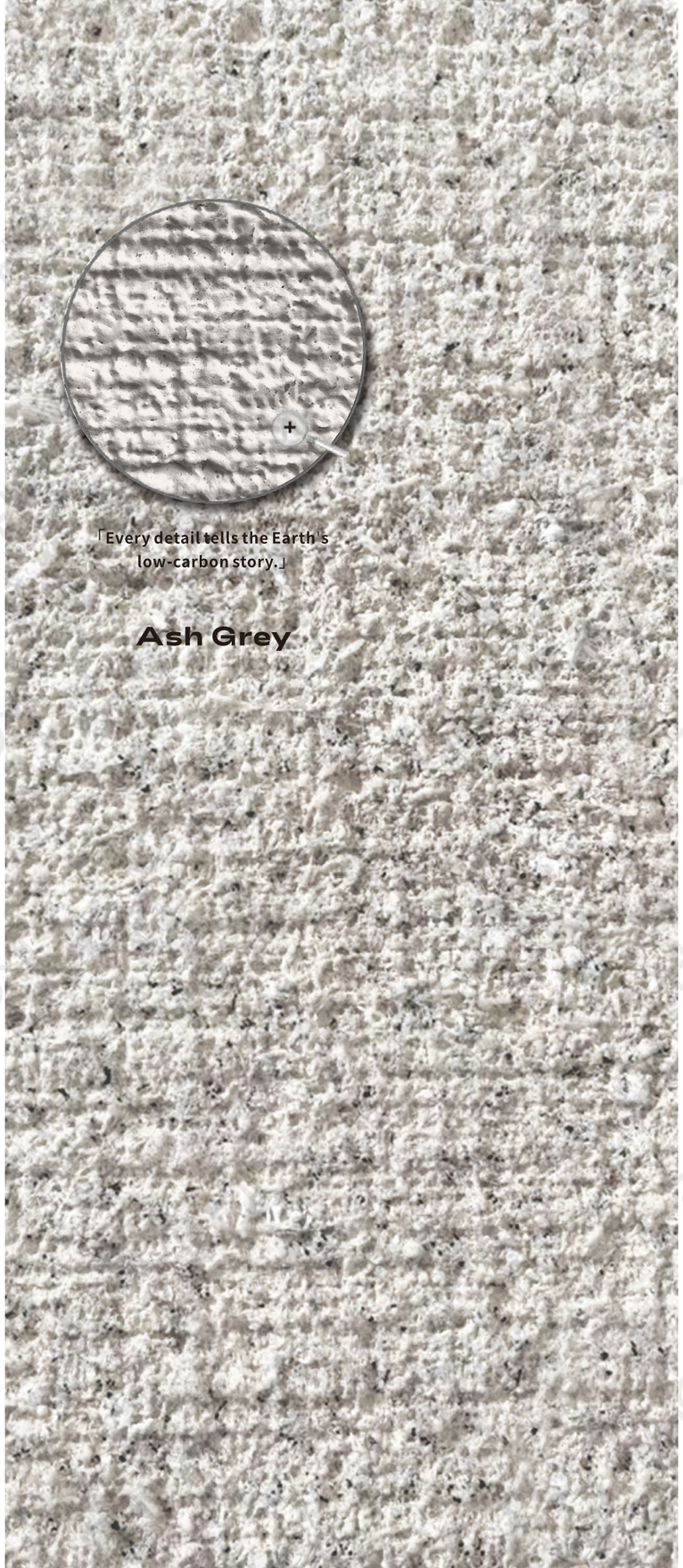
The quick-install system achieves 200 m² per shift, versus 35 m² with traditional methods.
76% reduction in diesel consumption.
148 tons CO_2e saved per project (based on 10,000 case studies)

Maximized Space & Energy Efficiency

Increases building height by 0.3m, boosting rental efficiency by 17%.
Expands natural light area by 35%, cutting lighting energy use and carbon emissions by 21%.

Massive Carbon Savings

Unit Carbon Emission: 1.02 kg CO_2e vs. 79.5 kg CO_2e/m^2 for stone.
Carbon Reduction for 200m Building: 15,600 tons CO_2e = 15.6 million trees' annual carbon sequestration.
98.63% Reduction in Lifecycle Carbon Cost (A1-C4 stages included)



PHOMI® eCovering

More color options

Specification and packaging

Generation	Standard size(mm)	Thickness(mm)	Packaging(mm)	Pcs/box	Sqm/box
4.0	1200x600	1-4	1220x620x75	14	10.08

eSolarFacade

Partner with the Sun to Power Buildings on

Winner of the 123rd Paris International Invention Gold Award.

Winner of the 76th International Exhibition of Inventions Nuremberg

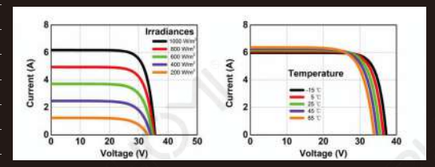
Energy Efficiency Comparison:

Power Efficiency: 60% HIGHER than glass BIPV with 60% transmittance (CQC/TUV certification)
Carbon Emissions: 54.6% lower than glass BIPV (BV certification)

eSolarFacade technical specifications

ELECTRICAL SPECIFICATIONS	
Test Conditions	STC
Maximum Power (Pmax)	59.23 ~ 166.62 W
Maximum Power Voltage (Vpmax)	20.70 ~ 29.22 V
Maximum Power Current (Ipmax)	2.86 ~ 5.70 A
Open Circuit Voltage (Voc)	24.18 ~ 35.52 V
Short Circuit Current (Isc)	3.15 ~ 6.17 A
Module Efficiency	9.12% ~17.63%
Maximum System Voltage (VDC)	1500 V (TUV/CE/CB/CQC/UKCA)
Series Fuse Rating	25 A
Power & Other Electrical Specification Tolerance	5%

I-V CURVES



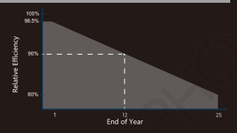
STC: Standard Test Conditions 1000 W/m2 - AM 1.5 - Temperature 25°C

MECHANICAL PROPERTIES	
Module Weight	15.28kg/m² (variable for different texture)
Dimensions (L x W x T)	1140x570x30mm, 1200x600x30mm, 1254x751x30mm, 1260x746x30mm
Maximum Surface Load (Wind / Snow)	2400 Pa rear & front
Hail Impact Resistance	ø 25mm @ 23.0 m/s
Fire Rating	A
Glass	No
Back support	Aluminium honeycomb composite panel
Cables & Connectors	300mm, 1000mm, 1200mm, 4mm²
Front layer	econiclay Coverings (High durability, UV resistant)
Backsheet	econiclay Coverings (High durability, UV resistant)
Bypass Diodes	2 diodes
Junction Box	Ip68 rated, TUV certified

TEMPERATURE RATINGS	
Temperature Coefficient Isc	0.036% /°C
Temperature Coefficient Voc	-0.25% /°C
Temperature Coefficient Pmax	-0.30% /°C
Nominal Module Operating Temperature	42 ± 3°C
Operating Temperature	-40°C ~ +85°C

WARRANTY

Product Warranty: 25 years
Perfomance Warranty:
fi ≥ 98% end of 1st year
fi ≥ 90% end of 12th year
fi ≥ 80% end of 25th year



Certifications

SGS TÜV SAAR — EU TUV Certification
China CQC Solar Product Certification
中国质量认证中心 CHINA QUALITY CERTIFICATION CENTRE — China CQC Quality Certification
CB — International CB Certification
CE — CE certification

PHOMI®
eSolarFacade

Partner with the Sun to Power Buildings On

Travertine, Reinvented with Photosynthesis
—— A Sustainable Choice for 237 Iconic Landmarks Worldwide

PHOMI eSolarFacade
(econiclay Building Integrated Photovoltaics)

Glass BIPV
(Building Integrated Photovoltaics)

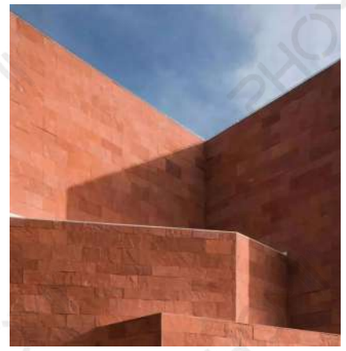
Compared to glass BIPV

Efficiency: eSolarFacade vs. glass BIPV (60% light transmittance) — 60% higher power output (CQC/TUV certification).
Carbon Emissions: Reduced by 54.6% (BV certification).

Application Scenarios:

Ideal for non-glass facade decorations for stations, airports, sports venues, road sides, bridge piers, and fences, offering both decoration and green energy solutions.





eSolarFacade advantages

Unlimited Material Expressiveness:
Achieves the same effect as natural materials like stone, wood, and brick, seamlessly blending with the facade.

Breaking Traditional Photovoltaic Limits:
Over 95% of buildings use non-glass curtain walls, while regular BIPV is limited to glass facades and windows. eSolarFacade breaks this barrier, enabling flexible use in various architectural styles, expanding photovoltaic technology in the building sector.

Higher Efficiency, Lower Carbon Emissions:
eSolarFacade offers over 60% higher power conversion efficiency than glass BIPV with 60% transmittance, reducing carbon emissions by over 54.6%.

More Customization Options:
Beyond power generation, eSolarFacade can be tailored for advertising, insulation, negative ion release, and more, enhancing building performance and comfort.

Photovoltaic stone facades, energizing curtain walls—every inch of building texture becomes a reservoir of light energy.

eSolarFacade Travertine Salento Yellow

2300mmX1140mm (customized size)
50W/m²-120W /m²

PHOMI eSolarfacade | Carbon Neutral Facade System Solution

6,000m² Curtain Wall with Dual-Effect Value

· Annual Power Generation: 600,000 kWh (0.6 MW capacity × 1,000 hours)
· Lifecycle Carbon Footprint: 0.26 kgCO_2e/Wp (BV certification)

Carbon Reduction Comparison
· Glass BIPV: eSolarfacade is 58% lower carbon footprint (vs. 0.62 kgCO_2e/Wp for glass BIPV)
· Stone Curtain Wall: eSolarfacade is 65% lower carbon emissions (vs. 74 CO_2e/m² for stone)

Economic Value
· Electricity Bill Annual Savings: 48,000 USD (0.08 USD/kWh electricity rate)
· Carbon Trading Revenue: 6,912 USD (8 USD/ton carbon price × 864 tons)

Ecological Contribution
· Carbon Sequestration: Equivalent to 48,000 trees
· Carbon Offset: Equivalent to 340 vehicles' annual emissions.

「**Powered by Day, Glowing at Night**」
Stored energy illuminates luminous crystals, casting a soft, nebula-like glow after dark.
A building facade that redefines time, with light and shadow as its clock.

eSolarFacade Travertine Cloud Grey

1140mmX570mm
50W/m²-120W /m²

PHOMI eSolarfacade | Carbon Neutral Facade System Solution

【10,000 m² Curtain Wall = Vertical Power Plant + Carbon Sink Forest】

Carbon Reduction Efficiency
→ 58% lower lifecycle carbon footprint compared to Glass BIPV (0.26 kgCO_2e/Wp vs. industry average of 0.62 kgCO_2e/Wp)
→ 63% reduction in carbon emissions compared to Stone Curtain Walls (Stone Curtain Wall: 74 kgCO_2e/m² vs. eBIPV: 26 kgCO_2e/m²)

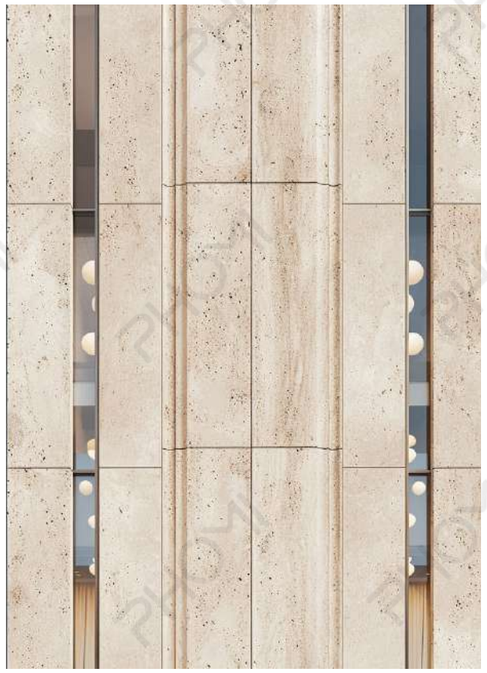
Economic Value
Energy Generation: 1.2 million kWh annually (based on 1200 hours of equivalent generation) ~ Electricity cost savings of 96,000 USD (0.08 USD/kWh)
Carbon Assets: Annual CO_2e reduction of 1,440 tons (coal replacement) ~ Carbon revenue of 11,520 USD (2025 carbon price: 8 USD/ton)

Ecological Contribution
Equivalent to the carbon sequestration of 144,000 trees per year = Offsetting the annual exhaust emissions of 1,000 fuel-powered vehicles.

Digital technology × Solar,
Redefining Building Facade Aesthetics

eSolarFacade Travertine Andes White

1140mmX570mm
50W/m²-120W /m²



Photovoltaic stone facades, energizing curtain walls—every inch of building facade becomes a reservoir of light energy

eSolarFacade Travertine Mookie Ivory

2300mmX570mm (customized size)
50W/m²-120W /m²

Facade Revolution for Carbon Neutrality In Line with Dual Carbon Goals

4,000 m² Curtain Wall =
A Carbon Neutral Interface for Public-Private Success

Annual Carbon Reduction: 384 tons
Compliant with the "Building Carbon Emission Calculation Standard"

Economic Incentive:
Benefit from local government subsidies of 0.03 USD/kWh for photovoltaics, boosting annual revenue by 13,263 USD

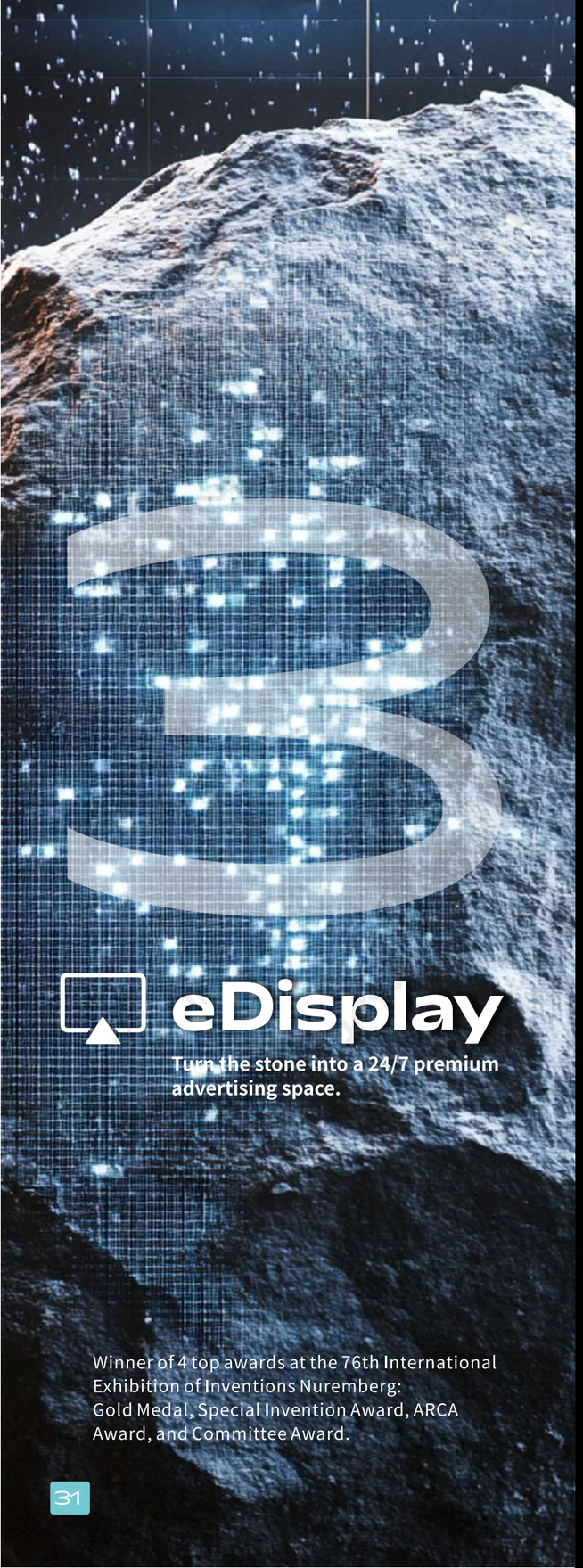
Green Certification:
Earn LEED/BREEAM credits, enhancing building value by 3% - 5%

PHOMI eSolarfacade | Carbon Neutral Solution for Small & Micro Buildings

【1,000m² Curtain Wall with Dual-Effect Value】
· Annual Power Generation: 120,000 kWh (0.1 MW capacity × 1,200 hours of equivalent generation)
· Lifecycle Carbon Footprint: 0.26 kg CO_2e/Wp (BV Certification)

Full-Cycle Economic Benefits
· Annual Electricity Savings: 9,600 USD (at industrial/commercial rate of 0.08 USD/kWh)
· Carbon Trading Revenue: 115.2 USD (2025 carbon price: 8 USD/ton × 14.4 tons)

Ecological Impact
· Carbon Sequestration Equivalent: 9,600 trees' annual absorption.
· Equivalent to 87 National VI Fuel Vehicles' Annual Emissions.



Winner of 4 top awards at the 76th International Exhibition of Inventions Nuremberg: Gold Medal, Special Invention Award, ARCA Award, and Committee Award.

Technical Principles

Phomi invented a covering material with one-way light guiding capability for display purpose - eDisplay. The core of this technology lies in precise manipulation of the microstructure of the covering material to achieve efficient unidirectional transmission of light. Through state-of-the-art technology, a specific optical channel network is constructed at the microscopic level, allowing the light generated by optoelectronic materials to propagate along a predetermined path and ultimately exit through specific areas of the covering material, forming a clear and coherent video signal output.

In addition to technological innovation, eDisplay also incorporates aesthetic design to simulate the natural texture of stone, the warm texture of wood or the rustic look of terracotta bricks through surface treatment, which is virtually unaffected by light conduction, ensuring that the eDisplay system can still present a pleasing visual effect while displaying video content. Moreover, eDisplay has a lower carbon footprint during its life cycle, which meets the requirements of green and sustainable development.

eDisplay is expected to become the mainstream choice in the field of display in the future, widely used in architectural decoration, information display and other fields, opening a new chapter in display technology.

Core Values

1. Architectural Revolution

a. Seamless Material-Display Fusion: Instantly convert stone, wood, or brick facades into 4K displays—disappearing when powered off. Interior surfaces such as walls, ceilings, and floors become interactive displays.

b. Invisible design: integrated display units with the building material, zero-exposure design, replacing traditional external LED screens.

2. Solar-Storage-Display System

Paired with eSolarFacade curtain walls, this system cuts external power consumption by 80%, offering a sustainable “display-generation-storage” solution.

3.Smart Aesthetic Adaptation

AI-driven adjustments automatically optimize brightness and texture for seamless integration.

4.Unlocking Commercial Value

Outdoor: Facades transform into 2,000-nit digital billboards, boosting ad revenue and space value.

Indoor: Retail walls instantly become immersive product displays, increasing customer stop time by 40%.

eDisplay Specifications

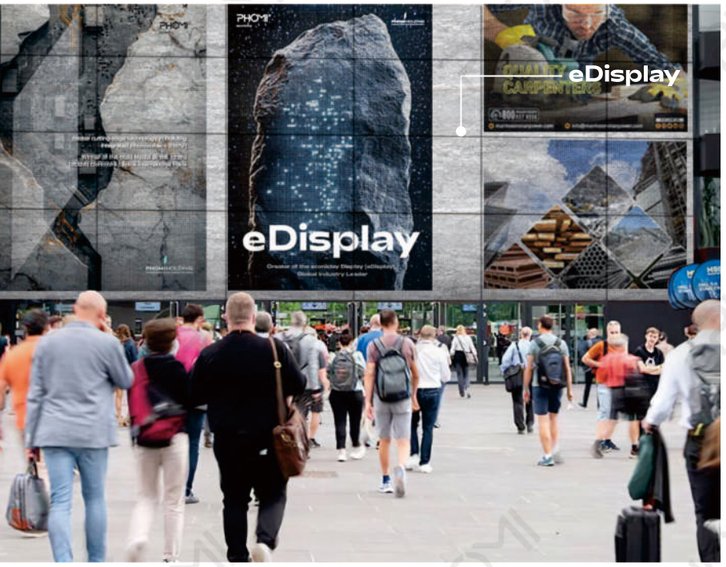
Specifications			Outdoor (night use only)	Outdoor (day and night use)	Indoor
Module Specification	Dimensions(mm)		1920x320/1280x320/ 1280x640/640x320 mm		1280x480/1004x754/960x320/ 960x160/640x320 mm
	Service access		Rear		Front
Physical Parameters	Resolution		P4	P6.67	P2.5
Image Processing Capabilities	Image frequency	Frame change frequency	50&60Hz	60Hz	50&60Hz
		Refresh frequency	⩾1920Hz	3840Hz	⩽3840Hz
Optics Parameters	Display uniformity	Color	△(Cx,Cy)⩽0.003		
	Contrast Ratio		3000:1		
	Viewing Angle	Horizontal	100°		
		Vertical	50°		
Electrical Specifications	Power consumption		Max.⩽1200W/㎡ Avg.⩽750W/㎡	Max.⩽520W/㎡ Avg.⩽173W/㎡	Max.⩽861W/㎡ Avg.⩽287W/㎡
Use Conditions	Operating ambient temperature		-20~50°C		
	Storage ambient temperature		-20~50°C		
	Operating ambient humidity		10-70% RH		
	Storage ambient humidity		10-70% RH		
	Service life		100000 H		

Certifications

RoHS CB CE

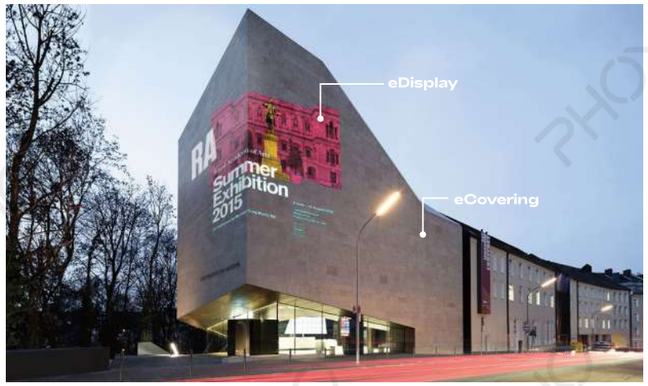
eDisplay

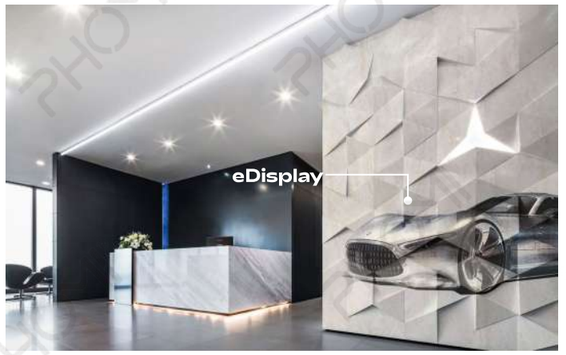
Turn the stone into a 24/7 premium advertising space.



「Turn your stone facade into a 2000nit digital billboard, boosting revenue and property value」

「Transform concrete into a live show in 0.3 seconds」





「Each stone is an 8K canvas」

「Superpowered Buildings: Powering Up by Day, Illuminating Dreams by Night」

「Silent as stone, dynamic as smart vision—let your space tell your brand's story」

eDisplay

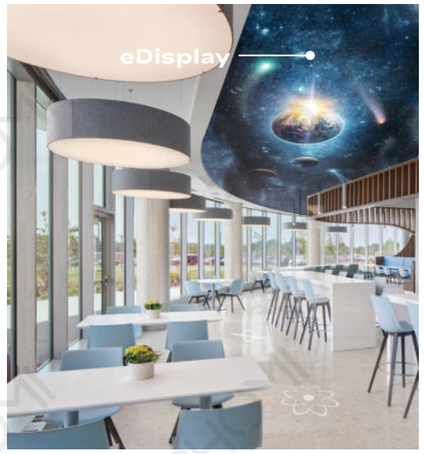
Turn the stone into a 24/7 premium advertising space.

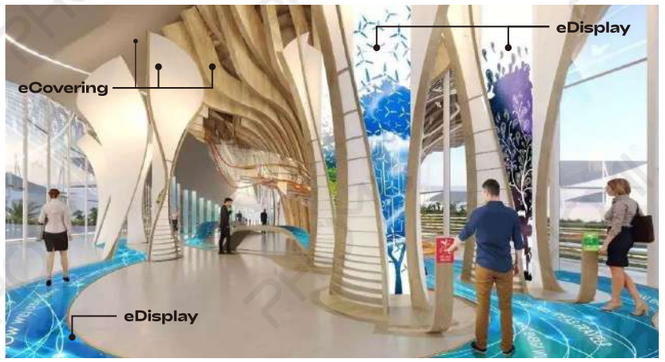
Hennessy Light Grey

「Instantly Activated, Discreetly Hidden – Travertine Wall Becomes a Smart Info Screen」

Greece Travertine Mookie Ivory

「Transform your restaurant wall into an 8K movie experience, with a starry sky above」





「With a simple tap, the wall comes alive, showcasing the Earth's evolution as a meteor shower」

Rome Travertine Cloud Grey

Rome Travertine Cloud Grey

「Stone walls turn into destination screen: The Eiffel Tower emerges, with lavender star rain falling from above」

「Stone walls in commercial spaces become immersive product displays, boosting customer stop time by 40%」

Rome Travertine Dark Grey

eSolarFacade & eDisplay

Standard colors

"When photovoltaics become the most versatile building material, its texture, finish, and color can all be customized."

More color & specification options

Standard Sizes

eSolarFacade:
1140x570mm

eDisplay:
1920X320mm(exterior)
1280X640mm(exterior)
1280X320mm(exterior)
1280X480mm(exterior)
1004X754mm(interior)
960X320mm(interior)
960X160mm(interior)
640X320mm(exterior & interior)

Negative Ion Series

Integrated with nano-level negative ion technology, redefining architecture with a perfect fusion of health and aesthetics.

Each square meter of PHOMI stone rebuilds the harmony between architecture and nature.

Harnessing nano-scale negative ion technology to blend health with aesthetics in architecture.

Negative Ion Series

Each square meter of PHOMI stone rebuilds the harmony between architecture and nature.

Urban Ecological Breathing Revolution

When a city's architecture and landscaping fully adopt PHOMI eCoverings (based on 300 million m^2):

1. Carbon Reduction

▶ Total Carbon Emission: 306 million kg CO_2
▶ Reduction vs. Traditional Stone: 21.89 million tons CO_2 (7.2% of Shenzhen's annual carbon emissions)
▶ Reduction vs. Tiles: 6.52 million tons CO_2 (equivalent to shutting down 2.2 large coal-fired power plants)

2. Urban Lung Capacity

▶ Releases 1.49×10^{15} negative ions per second
≈The purification capacity of 46,000 hectares of Wutong Mountain Forest Park
≈Provides 18 medical-grade air purifiers per citizen

3. Sustainability Impact

• Creates 2.8 times Shenzhen's natural carbon sink reserve for the Greater Bay Area
• Reduces smog days by 76% (based on Shenzhen's annual PM2.5 average)
• Cleans capacity equalitent to one-third of the Pearl River's annual runoff

Note: Conversion Basis

1) Based on Shenzhen's estimated annual carbon emissions of 300 million tons (2025 data)
2) Wutong Mountain National Forest Park area: 1,151 hectares, with a negative ion concentration of 2,800 ions/cm^3
3) 1 kg negative ions ≈ cleans 10m^3 of air pollutants

Decoding Ecological Impact

【When a building's facade uses 10,000m^2 of PHOMI Travertine】

1. Carbon Reduction Impact

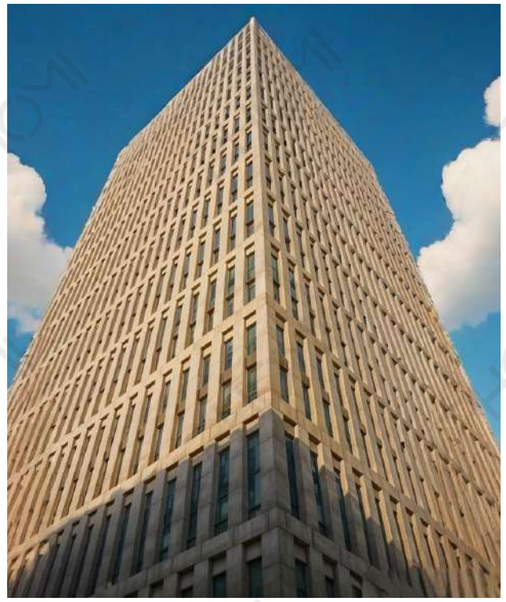
• Lifecycle carbon footprint: Only 10,200 kg CO_2e
• 73,000 kg CO_2e less than natural stone (equivalent to 3,317 mature trees' annual carbon absorption)
• 209,000 kg CO_2e less than traditional tiles (equivalent to the annual emissions of 95 SUVs)

2.Ecological Breathing Value

• Continuously releases 4.97×10^{11} negative ions per second = the purification of 17 football field-sized pine forests
• Provides a 3.2 km thick "natural air vitamin" shield for the building

3. Environmental Equivalency

• Equivalent to creating 4.2 square kilometers of tropical rainforest's annual carbon absorption
• Equivalent to 1,248 commercial air purifiers running for 30 years, providing daily negative ions for 18,720 residents



Note: eCoverings can be customized to release negative ions.

Carbon Neutral Equation for Lobby Spaces

【When a 1000m^2 office lobby adopts PHOMI eCoverings】

▶ **Carbon Reduction**: Cuts 72.98 tons of CO_2, equal to 17,000 barrels of unburned oil

▶ **Air Purification**: Releases 4.97×10^{11} negative ions per second, matching the oxygen output of 4.7 fir trees per m^2. Formaldehyde Removal: 23.5% higher efficiency than national standards | 84.1% long-term purification

▶ **Dual Sustainable Gains**
① Clean Air Impact: Purifies air for 320,000 people daily—equivalent to refreshing 0.35 Bird's Nest Stadiums
② Carbon Asset Value: Adds 2073 USD/year in carbon credits (based on 2025 market rates)

Storefront Facade · Visualized Eco-Benefits

【1,000m^2 PHOMI Travertine Application】

▶ Carbon Footprint: Just 1.02 tons CO_2e, cutting 19 tons of quarrying emissions—equal to planting 86 mature ginkgo trees
▶ Air Quality Boost: 47× WHO standard in negative ions, extending customer stop time by 28%

Negative Ion Series

Each square meter of PHOMI stone rebuilds the harmony between architecture and nature.

Home Eco Cube [250m²]

Carbon Reduction
▶ 255kg CO_2 lifecycle footprint
≈27 fir trees' carbon absorption for 30 years
≈ Offsets 8.3 cars' annual commute emissions

Healthy Air
▶ 1.24×10^{10} negative ions/sec
≈Transforms your home into an 80m-thick pine forest oxygen zone
≈Provides 16.5x WHO's clean air standard for a family of four

Impact at a Glance
✓ In a 40m² living room, every 10 minutes of breathing provides the same amount of negative ions as a 1-hour forest walk.
✓ Compared to traditional covering materials, saves 1.1KW.h A/C consumption every day for your home.

Eco Living, Everywhere
From kitchen countertops to balcony walls, every square meter contributes to the planet's breathing rhythm.

Micro-Space Eco Revolution

【30m² Eco-Space Impact】

Air Purification
▶ 1.49 billion negative ions/sec = 120m² bamboo forest
▶ 4.5m³ medical-grade clean air/min

Carbon Reduction
▶ 30.6kg CO_2 lifecycle footprint ≈ 1.5 poplar trees' annual absorption
▶ 2,189kg less CO_2 vs. stone, saving 300kg coal

Daily Benefits
✓ Offsets 7.3 fuel cars' 10km emissions
✓ Restores 156m² rainforest
✓ Equals 37 ICU air purifiers running nonstop

【15m² Eco-Space Impact】

A 15m² wall in a dressing room delivers 8 hours of fresh air, equivalent to a 2km walk through a pristine forest.

Note: eCoverings can be customized to release negative ions.

Precise Carbon Reduction for Commercial Spaces

【1,000 m² of eCoverings used in commercial spaces】

Carbon Reduction Impact:
73 tons CO_2e saved over the lifecycle = annual carbon absorption of 322 mature camphor trees

Air Regeneration System:
Releases 4.97 billion negative ions per second = 0.004 mature fir trees' carbon absorption per square meter of wall

Environmental Contributions:
① Carbon Asset Growth: Annual reduction of 72.98 tons = Worth 583.84 USD/year (based on 2025 carbon price of 8 USD/ton)
② Air Quality Improvement: Purifies air for 91,000 people daily (meeting WHO standards of 30m³ per person/day)
③ Business Carbon Offset: Offsets emissions of 31 fuel-powered vehicles annually (based on national standards of 2.36 tons CO_2per vehicle/year)

A Data-Driven Green Retail Space Revolution

1000m² Coverings= Advanced Eco-Tech Matrix

Carbon Reduction Innovation
▶ Carbon emission: 1.02 kg/m² (98.6% lower than stone)
▶ Total carbon reduction: 729,800 kg CO_2 = Sequestered carbon of 3,317 30-year-old camphor trees

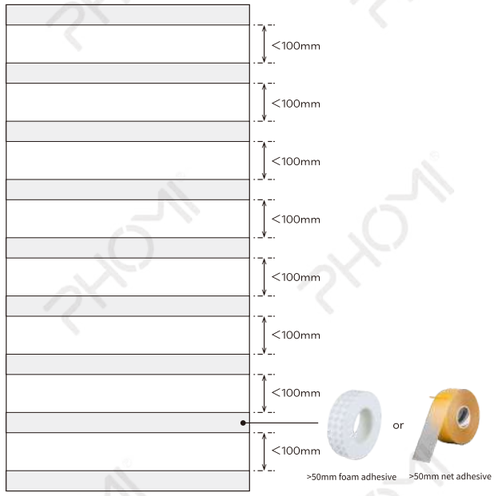
Smart Air System
▶ 4.97 billion negative ions/second released continuously (1m² = equivalent to 4.2 fir trees'purification)
▶ Formaldehyde removal efficiency 23.5% above national standard | Long-lasting purification: 84.1%

Environmental Impact
· Carbon Asset: 729.8 tons of carbon reduced annually = Carbon revenue of 5949 USD (2025 carbon price 8 USD/ton)
· Healthy Breathing Model: Provides clean air for 91,000 people daily (WHO standard: 30m³/person · day)
· Low-carbon Impact: Equivalent to offsetting the annual emissions of 309 fuel-powered cars

eCovering & Negative Ion Series
Installation Method

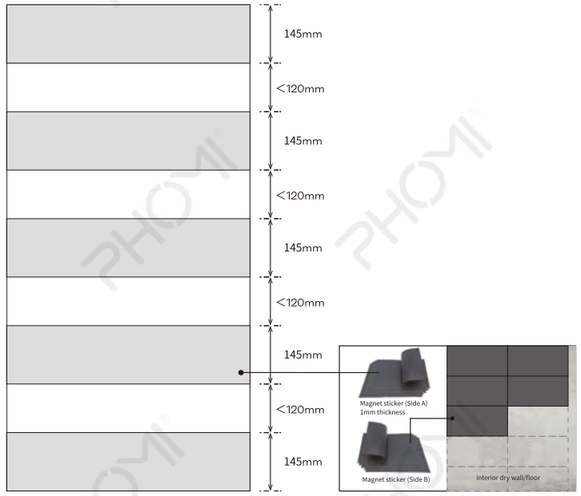
DIY Series
Only for interior dry wall and floor application

≤1200x600mm product back side

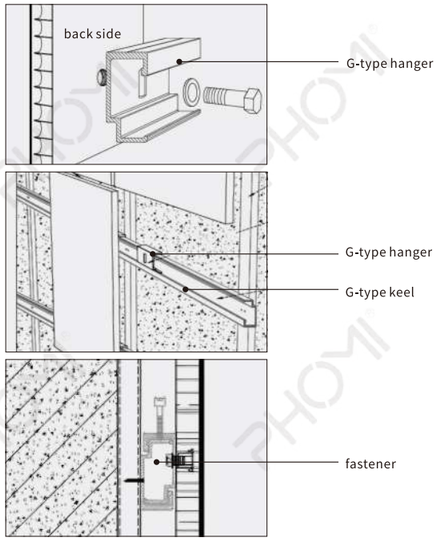


Magnet sticking
Only for interior dry wall and floor application

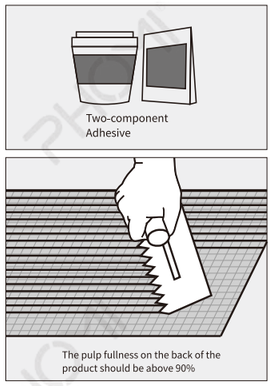
≤1200x600mm product back side



Dry-hanging system
Commonly used for exterior walls



Wet installation system
Suitable for both interior & exterior



Note: For interior applications in bathrooms or other wet areas, wet-pasting installation is required.

eSolarFacade & eDisplay
Installation Method

Use a laser rangefinder and digital level for wall positioning. Secure the custom keel with an impact drill using mechanical anchoring. Align the panel slots with the keel for initial fixation, then fine-tune and reinforce with specialized connectors to ensure precision and efficiency.

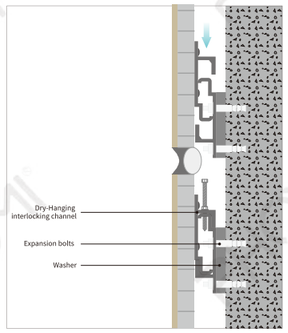
1 Attach/Secure the aluminum brackets to the back of the honeycomb panel with bolts and nuts.

2 Secure the aluminum rail with expansion bolts to the solid wall. Insert the aluminum brackets of honeycomb panel into the aluminum rail on the solid wall, then secure the brackets to the rail with screws (bolts and nuts).

Installation and Maintenance

1. Cleaning: After acceptance, the frequency of cleaning should be determined based on the level of wall contamination, with a minimum of once a year. Use hand soap mixed with tap water, and avoid using organic solvents.

2. Curtain wall inspection and maintenance:
· A comprehensive inspection of the curtain wall should be conducted every five years, including the panels, sealing strips, and sealants.
· Tighten any loose bolts, and for corroded connectors, remove rust and repaint or replace them.
· Loose or damaged panels should be repaired or replaced.
· Sealants and sealing strips that have fallen off or are damaged should be repaired or replaced.
· Damaged components or connectors should be replaced or reinforced if the anchoring is loose.
· Regularly check the drainage system, and clear any blockages.
· Any loose or damaged hardware should be replaced.



Schematic diagram of Dry-Hanging

eSolarFacade dry-hanging unit

Combited inverter and storage unit

eSolarFacade off-grid energy storage system

Civil eSolarFacade: When purchasing civil eSolarFacade, Phomi will provide you with (extra charge) an off-grid energy storage system, including storage batteries, controllers, and inverters, based on your order quantity. Please consult your local Phomi Agency for the pricing of eSolarFacade and the energy storage system.

Commercial eSolarFacade: The installation of the electrical components should proceed in sync with the setup of the curtain wall, strictly following the electrical design drawings and the relevant design and construction standards.

Functional Model Structure

Main category	eSolarFacade eDisplay eCovering	If it is eCovering, omit this section and proceed directly to the texture.
Texture	Rome Travertine 3.0 Rome Travertine 4.0 Oceanic Travertine 3.0 Oceanic Travertine 4.0 Marble 3.0 Marble 4.0 Sandstone 3.0 Sandstone 4.0 ……	This code is a must for every item. If it is eDisplay and eSolarFacade generation code is not required.
Installation	**SA.** (Self Adhesive) **MG.** (Magnetic) **AH.** (Aluminum honeycomb. If there is a number after AH, it is the thickness of honeycomb.) **AP.** (Aluminum panel) **SF.** (Steel frame) **FC.** (Fibreglass cement)	This code can be null if it is by wet paste.
Extra function	**B.** (with insulation) **N.** (with negative oxygen ion) **M.** (with anti-mold/bacteria coating) **G.** (Glossy and higher anti-stain coating)	This code can be null if it is normal coating.
Technical Specification	**20V.** (with 20mm vacuum insulation) **30V.** (with 30mm vacuum insulation) **50V.** (with 50mm vacuum insulation) **50R.** (with 50mm rockwool insulation) **P25.** (P2.5 for eDisplay) **P40.** (P4.0 for eDisplay) **P66.** (P6.6 for eDisplay)	This code can be null.
Color	Aegean White Moonlight Sunis White Australia Orange Cloud Andes White White Sesame BN02 ……	This code is a must for every item.

Example

eCovering	Rome Travertine 3.0 Aegean White
eSolarFacade	eSolarFacade Rome Travertine AP.30V.Aegean White
eDisplay	eDisplay Rome Travertine AP.20V.P66.Aegean White
Negative Ion Series	Rome Travertine 3.0 N.Aegean White

material science
that shapes
the future

PHOMI HOLDING
material science that shapes the future